CSI.1 General Information

US Manufacturer / US Importer	**Harley-Davidson Motor Company**
EPA Manufacturer Code	**HDX**
Enter the Manufacturer Code assigned by CARB, if any (Uppercase Letters Only):	**HD**
Parent Company Name, if applicable	
Enter the date that the EPA certification fee was paid	**05/16/2019**
Model Year	**2020**
Select the Vehicle Category for This Engine Family	**Class III Highway Motorcycle With Displacement of 280cc and Over**
Select the applicable application type	**Correction**
Enter the engine family that previously certified:	
Enter the 12-character engine family for this application	**LHDXC0.88CEA**
Enter the Permeation Family Name	**LHDXPMETAL02**
Does this Perm Family participate in Average Banking and Trading?	No
Does this EF participate in an EPA and/or CARB emission averaging program?	**Yes**
If yes, does EF participate in an EPA and/or CARB emission averaging program?	Both
CARB corporate averaging plan engine family?	Yes
Sales Areas of All Vehicles/Engines in This Engine Family	**Some 49, Some California**
Are You a Small Volume Manufacturer Designated by EPA or CARB?	**Regular Volume**
(EPA-Only) Are you Certifying This Vehicle/Engine By Design	
Indicate the testing procedure applied for exhaust emissions values	**40CFR86, Subpart E: Chassis test**
If Other, Please provide EPA/CARB approval ID for this testing procedure	
Are you the original manufacturer of the certifying vehicle/engine?	**Yes**
Original Equipment Manufacturer #1	
Enter the full legal name of the vehicle original equipment manufacturer	Harley-Davidson Motor Company
Enter the country where the vehicles were assembled	USA
Enter the full legal name of the engine original equipment manufacturer	Harley-Davidson Motor Company
Enter the country where the engines were assembled	USA
Enter any comments that you want EPA/CARB to know regarding the above information	**This is a correction to a Carryover application. Worst case for emissions certification is now the XL883N model, because the XL883L model was dropped. The two models are equivalent for emissions. The EDV remains the XL883L.**

CSI.2A EPA Exhaust Emission Standards and Certification Levels

Exhaust Emissions Unit	**g/km**
HC	
Certification Level	

Emission Standard	
Family Emission Limit	
NO_x	
Certification Level	
$HC+NO_x$	
Certification Level	0.5
Emission Standard	
Family Emission Limit	0.8
CO	
Certification Level	1.2
Emission Standard	12.0
Family Emission Limit	
Applicant Notes	**HC + NOX = 0.546. CO = 1.212**

CSI.2B CARB Emission Standards and Certification Levels

CARB HMC Early Compliance Multiplier	**1**
CARB Exhaust Emissions	
Exhaust Emissions Unit	**G/KM**
HC	
Certification Level	0.5
Emission Standard	
Family Emission Limit	
NO_x	
Certification Level	0.1
$HC+NO_x$	
Certification Level	0.5
Emission Standard	0.8
Family Emission Limit	0.8
CO	
Certification Level	1.2
Emission Standard	12
Emission Useful Life (years)	**5**
Emission Useful Life (km)	**30000**
Vehicle Evaporative Emissions (HMC Only)	
Diurnal + Hot Soak (Unit: g/test)	
Evaporative Family 1	
Evaporative Family Name	**LHDXU0035ACB**
Certification Level	1.7
Emission Standard	2.0
Emission Useful Life (years)	5
Emission Useful Life (km)	30000
Applicant Notes	**HC + NOX = 0.546. CO = 1.212**

CSI.3 Engine Family Description

Engine Family Useful Life	**EPA Required Useful Life**
Years	
Hours	
Kilometers	
Does this engine family have multiple operating fuels?	**Single Fuel System**

Fuel Type 1	
Primary Operating Fuel Type	Gasoline
Fuel Type, If Other	
Combustion Cycle	4-Stroke
Other	
Cylinder Arrangement	Vee
Other	
Number of Cylinders	2
Valves per Cylinder	2
Engine Type	Reciprocating (Otto Cycle)
Other	
Engine Cooling Media	Air Cooled
Other	
Does this engine family contain multiple displacements?	No
Displacement Values	883.0
New Technology	No
If yes, explain	
Applicant Notes	

CSI.4 Exhaust Emission Control Information

Exhaust ECS 1	
Is this engine family equipped with a catalytic converter?	Yes
Enter the total number of catalytic converters (1 - 9)	2
Select the applicable catalytic converter configuration	Parallel
Select the catalytic converter type used	Three Way Catalyst (TWC), single-bed, closed-loop warm up
Catalyst Manufacturer Name	BASF Corporation
Address	33 Wood Avenue, South Iselin NJ 08830 US
Does the engine family use an Exhaust Gas Recirculation (EGR) technology as part of the Emission Control System?	No
Enter a description of the EGR technology used	
Select the applicable engine fuel system type	Sequential Multiport FI
If Other, Enter a description of the fuel system	
Enter the number of carburetors	
Enter the number of barrels per carburetor	
Select the method of air aspiration for the engine	Naturally Aspirated
If Other, Enter a description of the method of engine aspiration	
Select the Charge Air Cooler Type	No Air Cooler
Select the type of electronic engine control module	Engine Control Module
Select the applicable method of air injection methodology	Not Applicable
If Other, enter the applicable method of air	

injection methodology	
Are there any air/fuel feedback sensor used on this engine family?	**Yes**
Sensor Type	Heated Oxygen Sensor
Sensor Type, if Other	
Specify the number of feedback sensor(s) used	2
Select the configuration of the feedback sensors arrangement	Parallel
Applicant Notes	

CSI.5 Exhaust Emission Data Vehicle/Engine (EDV/E) and Emissions Test Data

Test Vehicle #1	
EDV ID	**40919X**
EDV/Test Data Type	**Carryover**
Original EF Name That Contains EDV Data	HHDXC0.88CEA
DDV Engine Family if Different from EDV Engine Family	
Configuration ID	**2**
Model Name	**XL883L**
Tire Pressure (in PSI)	**42**
Road Load Force (N)	**150**
Rated Power	[redacted]
Rated Power Unit	kW
RPM at Rated Power	6000
Cylinder (Block) Arrangement	**Vee**
Number of Cylinders	2
ECS Number (From Tab 4)	ECS 1
Displacement (cc)	**883**
Transmission	**Manual**
Number of Gears	5
N/V Ratio	**35**
Curb Mass (in kg)	**256**
Equivalent Inertia Mass (in kg)	**370**
Exhaust Test #1	
Date	**03/11/2016**
Test Identification Number	**APG506264**
Test By	**Manufacturer Conducted Test**
Test For	**Certification Emission Test**
Test Fuel	**Indolene**
Test Measurement Unit	**Kilometers**
Tested at Cumulative Km or Hr	**3613**
Raw Exhaust Emission Test Results	
Test Unit	g/km
HC	.32
NO_x	.08
HC + NO_x	.39
CO	1.19
CO_2	114
Exhaust Test #2	
Date	**03/24/2016**
Test Identification Number	**APG506331**

Test By	**Manufacturer Conducted Test**
Test For	**Certification Emission Test**
Test Fuel	**Indolene**
Test Measurement Unit	**Kilometers**
Tested at Cumulative Km or Hr	**8159**
Raw Exhaust Emission Test Results	
Test Unit	g/km
HC	.36
NO_x	.09
HC + NO_x	.44
CO	1.39
CO_2	116
Exhaust Test #3	
Date	**03/29/2016**
Test Identification Number	**APG506349**
Test By	**Manufacturer Conducted Test**
Test For	**Certification Emission Test**
Test Fuel	**Indolene**
Test Measurement Unit	**Kilometers**
Tested at Cumulative Km or Hr	**8196**
Raw Exhaust Emission Test Results	
Test Unit	g/km
HC	.33
NO_x	.09
HC + NO_x	.42
CO	1.45
CO_2	115
Exhaust Test #4	
Date	**04/13/2016**
Test Identification Number	**APG506415**
Test By	**Manufacturer Conducted Test**
Test For	**Certification Emission Test**
Test Fuel	**Indolene**
Test Measurement Unit	**Kilometers**
Tested at Cumulative Km or Hr	**15115**
Raw Exhaust Emission Test Results	
Test Unit	g/km
HC	.38
NO_x	.09
HC + NO_x	.47
CO	1.21
CO_2	112
For EPA Certification (50 States and 49 State)	
Certification Level Unit (Specified on CSI.2a)	**G/KM**
HC	
NO_x	
HC + NO_x	0.5
CO	1.2
End of Useful Life Emissions Value	**Calculated by applying DF**

HC	.45
NO_x	.09
HC + NO_x	.55
CO	1.21
EPA Deterioration Factor	
DF Type	Multiplicative
HC	1.204
NO_x	1.000
HC + NO_x	1.161
CO	1.000
For CARB Certification (50 State or CA only)	
Certification Level Unit (Specified on CSI.2b)	**G/KM**
HC	0.5
NO_x	0.1
HC + NO_x	0.5
CO	1.2
Enter the Test Number Associated to the Official Certification Level	**Test #4**
HC	.38
NO_x	.09
HC + NO_x	.47
CO	1.21
CO_2	112
Extrapolated or End of Useful-Life Data (Hr or Km) Interval	**30000**
HC	.45
NO_x	.10
HC + NO_x	.55
CO	1.27
Interpolated Total Test Interval (Hr or Km)	**15000**
HC	.38
NO_x	.10
HC + NO_x	.48
CO	1.30
Modified DF: Interpolated Minimum Test Distance (Hr or Km)	
HC	
NO_x	
HC + NO_x	
CO	
CARB Deterioration Factor (Additive)	
HC	
NO_x	
HC + NO_x	
CO	
CARB Deterioration Factor (Multiplicative)	
HC	1.204
NO_x	1.000
HC + NO_x	
CO	1.000

End of Useful Life Emissions Value	**Calculated by applying DF**
HC	.45
NO_x	.09
HC + NO_x	.55
CO	1.21
Manufacturer Comments	**Data is from XL883L model, but is representative of XL883N also, as the key model characteristics are equivalent. The EDV remains the XL883L.**

CSI.5A Federal Mandatory Greenhouse Gas (GHG) Reporting

Greenhouse Gas 1	
GHG Name	CH4 (Methane)
GHG Value	.018
Unit of GHG Value	grams/kilometer
Measured/Estimated at Distance (km)	3515
By Method	Tested result from the EDV(s) of the Engine Family
Test Vehicle ID	36937
Reference/Citations	APG501804
Test/Estimation Date	01/18/2013
Greenhouse Gas 2	
GHG Name	CO2 (Carbon Dioxide)
GHG Value	109.2
Unit of GHG Value	grams/kilometer
Measured/Estimated at Distance (km)	3515
By Method	Tested result from the EDV(s) of the Engine Family
Test Vehicle ID	36937
Reference/Citations	APG501804
Test/Estimation Date	01/18/2013
Greenhouse Gas 3	
GHG Name	N2O (Nitrous Oxide)
GHG Value	.005
Unit of GHG Value	grams/kilometer
Measured/Estimated at Distance (km)	3515
By Method	Derived result based on test results from other similar vehicles
Test Vehicle ID	36937
Reference/Citations	APG501804
Test/Estimation Date	01/18/2013
Applicant notes for GHG data:	

CSI.6A Permeation Emissions Control / Test Data

(Optional Until Model Year 2008)

Fuel Tank 1	
Permeation Family Name	LHDXPMETAL02
Certification Level ($g/m^2/day$)	1.10
Emission Standard ($g/m^2/day$)	1.5
Family Emission Limit ($g/m^2/day$)	
Permeation Emissions Certification Method	**E = Emission tests**
Fuel Tank Manufacturer	**Harley-Davidson**
Certify by Design	
Select the applicable permeation emission certify-by-design technology category.	

Other	
Certify by Emission Testing	
Use Carry-over Test Data?	**No**
If carryover, from permeation family	
Carryover DF	**Yes**
If carryover, from permeation family	JHDXPMETAL02
Tank Material	**Metal**
Tank Material if Other	
Control Strategy	Inherently Low/Zero Permeation Material
Least Thickness (mm)	
Least Barrier Weight (%) Note: If Tank Material is not "Metal", one of the three "Least Barrier" fields is required.	
Least Barrier MoI (%)	
Least Barrier Thickness (mm)	
Production Method	Other Production Method
Production Method if Other	Metal
Test Data (g/m^2/day)	1.10
DF (g/m^2/day)	.03
Certify by Certified Tank	
EPA Certificate Number	
Fuel Line 1	
Certification Level (g/m^2/day)	2.9
Emission Standard (g/m^2/day)	15
Permeation Emissions Certification Method	**E = Emission tests**
Fuel Line Manufacturer	**Nobel Automotive**
Certify by Design	
Select the applicable permeation emission certify-by-design technology category.	
Other	
Certify by Emission Testing	
Use Carry-over Test Data?	**Yes**
If carryover, from permeation family	JHDXPMETAL02
Carryover DF	**Yes**
If carryover, from permeation family	JHDXPMETAL02
Fuel Line Material	**Plastic**
Fuel Line Material if Other	
Least Thickness (mm)	1
Test Results (g/m^2/day)	2.9
DF (g/m^2/day)	
Certify by Certified Fuel Line	
EPA Certificate Number	
Fuel Line 2	
Certification Level (g/m^2/day)	3.8
Emission Standard (g/m^2/day)	15
Permeation Emissions Certification Method	**E = Emission tests**
Fuel Line Manufacturer	**Nobel**
Certify by Design	
Select the applicable permeation	

emission certify-by-design technology category.	
Other	
Certify by Emission Testing	
Use Carry-over Test Data?	**Yes**
If carryover, from permeation family	JHDXPMETAL02
Carryover DF	**Yes**
If carryover, from permeation family	JHDXPMETAL02
Fuel Line Material	**Plastic**
Fuel Line Material if Other	
Least Thickness (mm)	1
Test Results (g/m^2/day)	3.8
DF (g/m^2/day)	
Certify by Certified Fuel Line	
EPA Certificate Number	
Comments	

CSI.6B Evaporative Family Description

Evaporative Family#1	
Evaporative Family	**LHDXU0035ACB**
Evaporative Family Group	
Vapor Storage Device (canister)	**Yes**
Number of Canisters	1
Canister Configuration	Single
Canister(s) Total Working Capacity (g)	35
Canister(s) Total Medium Volume (cc)	550
Canister Storage Medium	Carbon
Canister Housing Material	Plastic
Canister Vent System Configuration	Closed Bottom
Vapor Storage Device (crankcase)	**No**
Vapor Storage Device (intake manifold element)	**Yes**
Vapor Storage Device (charcoal air cleaner)	**No**
Purge System Configuration	**Purged Control**
Individual Fuel Tanks in this Evaporative Family	
Tank Material / Volume Fuel Tank #1	
Steel or Plastic	Steel
50% Fill Volume (liters)	6.3
Tank Material / Volume Fuel Tank #2	
Steel or Plastic	Steel
50% Fill Volume (liters)	4.0
Tank Material / Volume Fuel Tank #3	
Steel or Plastic	Steel
50% Fill Volume (liters)	8.5
Fuel Tank Material(s) Description	**steel**
Fuel Hose Material(s) Description	**Teflon**
Comments	**8.5 = KHDXC1.2CEA; XL1200C (dropped) 6.3 = KHDXC1.2CEA; XL1200CX, XL1200NS 6.3 = KHDXC0.88CEA; XL883N 4.0 = KHDXC01.2CEA; XL1200X,**

CSI.6C Evaporative Emission Data Vehicle (EDV) and Emission Test Data

Evaporative EDV Set #1	
Evaporative Family	**LHDXU0035ACB**
EDV Evaporative Type	**Carryover**
EDV Carryover or Carry Across Evaporative Family	**KHDXU0035ACB**
Evaporative Family Group	
Evaporative Test Vehicle ID	**40916X**
Evaporative Test Vehicle Model	**XL1200C**
Engine Displacement (cc)	**1200**
50%-Fill Fuel Tank(s) Capacity (liters)	**8.5**
100%-Fill Fuel Tank(s) Capacity (liters)	**17.0**
Evaporative Emission Test #1	
General Evaporative Emission Test Information	
Test Date	01/28/2016
Test ID Number	APG506062
Test By	Manufacturer
Test Fuel	Indolene
Test For	Certification Emission Test
Test Cycle	SHED
Raw Evaporative Testing Result (g/test)	
Diurnal	.55
Hot Soak	.20
Diurnal + Hot Soak	.75
Evaporative Emission Test #2	
General Evaporative Emission Test Information	
Test Date	02/10/2016
Test ID Number	APG506123
Test By	Manufacturer
Test Fuel	Indolene
Test For	Certification Emission Test
Test Cycle	SHED
Raw Evaporative Testing Result (g/test)	
Diurnal	.08
Hot Soak	.04
Diurnal + Hot Soak	.12
Evaporative Emission Test #3	
General Evaporative Emission Test Information	
Test Date	02/11/2016
Test ID Number	APG506130
Test By	Manufacturer
Test Fuel	Indolene
Test For	Certification Emission Test
Test Cycle	SHED
Raw Evaporative Testing Result (g/test)	
Diurnal	.09
Hot Soak	.05
Diurnal + Hot Soak	.15
Evaporative Emission Test #4	
General Evaporative Emission Test	

Information	
Test Date	03/10/2016
Test ID Number	APG506256
Test By	Manufacturer
Test Fuel	Indolene
Test For	Certification Emission Test
Test Cycle	SHED
Raw Evaporative Testing Result (g/test)	
Diurnal	.75
Hot Soak	.38
Diurnal + Hot Soak	1.13
Enter the Evaporative Test Number as the Official Raw Evaporative Emission Certification Level (without DF)	**Test #4**
Diurnal	.75
Hot Soak	.38
Diurnal + Hot Soak	1.13
Overall Evaporative Emission Deterioration Factor	**.60**
Overall Evaporative Emission Certification Level (with DF)	**1.72**
Manufacturer Comments	

CSI.6D Evaporative Durability Data Vehicle (DDV) and Durability Test Data

Evaporative DDV Set #1	
Evaporative Family	**LHDXU0035ACB**
DDV Evaporative Type	**Carryover**
DDV Carryover or Carry Across Evaporative Family	**KHDXU0035ACB**
Evaporative Family Group	
DF Test Vehicle ID	**40916X**
Evaporative Test Vehicle Model	**XL1200C**
Engine Displacement (cc)	**1200**
50%-Fill Fuel Tank(s) Capacity (liters)	**8.5**
100%-Fill Fuel Tank(s) Capacity (liters)	**17.0**
Evaporative DDV Comments	**Same as EDV**
Using assigned CARB Bench DF	**Yes**
DF Test Vehicle ID	
Evaporative Bench DF Test #	
Test Date	
Test ID Number	
Test Fuel	
Test Point	
THC Raw Evaporative Emission Value (g/test)	
Bench Interpolated Value (typically at $^1/_2$ useful-life mileage test point)	
Bench Interpolated Value for Total Hydrocarbons (typically at $^1/_2$ useful-life mileage test point)	
Bench Extrapolated Value (typically at useful-life mileage test point)	
Bench Extrapolated Value for Total Hydrocarbons (typically at useful-life	

mileage test point)	
Bench Evaporative Deterioration Factor for Total Hydrocarbons	**.5**
DF Test Vehicle ID	**assigned**
Evaporative Vehicle DF Test #1	
Test Date	01/28/2016
Test ID Number	APG506062
Test Fuel	Indolene
Test Point	3613
THC Raw Evaporative Emission Value (g/test)	.75
Evaporative Vehicle DF Test #2	
Test Date	02/10/2016
Test ID Number	APG506123
Test Fuel	Indolene
Test Point	8158
THC Raw Evaporative Emission Value (g/test)	.12
Evaporative Vehicle DF Test #3	
Test Date	02/11/2016
Test ID Number	APG506130
Test Fuel	Indolene
Test Point	8188
THC Raw Evaporative Emission Value (g/test)	.15
Evaporative Vehicle DF Test #4	
Test Date	03/10/2016
Test ID Number	APG506256
Test Fuel	Indolene
Test Point	15179
THC Raw Evaporative Emission Value (g/test)	1.13
Vehicle Interpolated Value (typically at $^1/_2$ useful-life mileage test point)	**15000**
Vehicle Interpolated Value for Total Hydrocarbons (typically at $^1/_2$ useful-life mileage test point)	.82
Vehicle Extrapolated Value (typically at useful-life mileage test point)	**30000**
Vehicle Extrapolated Value for Total Hydrocarbons (typically at useful-life mileage test point)	1.52
Vehicle Evaporative Deterioration Factor for Total Hydrocarbons	**.70**
Overall Evaporative Vehicle DF [(bench + vehicle)/2]	**.60**
Outlier Information	
Manufacturer Comments - Bench	**was assigned per CARB at .5 g/test per C-91-31**
Manufacturer Comments - Vehicle	

CSI.7 Models Covered

Vehicle/Engine Models Covered	
Model #1	
Final Assembly Manufacturer Name	**Harley-Davidson Motor Company**
Manufacturer Model Name	**XL883N**

Commercial / Advertised Model Name	IRON 883
Engine Code	2
Vehicle Category	Class III Highway Motorcycle With Displacement of 280cc and Over
Evaporative Family (CARB)	LHDXU0035ACB
Number of Evaporative Canisters (CARB)	1
Bore (mm)	76.2
Displacement (cc)	883
Stroke (mm)	96.8
Basic Ignition Timing (degrees, BTDC)	15
Rated Power (kW)	[redacted]
RPM @ Rated Power	6000
Rated Torque (nt-m)	73
RPM @ Rated Torque	3750
N/V Ratio	35
Curb Mass (kg)	255
Equivalent Inertial Mass (kg)	370
Transmission (e.g. M5, A3, etc.)	M5
Vehicle Emission Compliance Information (VECI) Label Type	California and 49-state labels
Fuel System	Single Fuel System
Operating Fuel	Gasoline
Emission Control System (model / rating specific)	ECS 1
Projected Sales (CBI) - CA Only	[redacted]
Projected Sales (CBI) - US Total (includes CA Sales)	[redacted]
Projected Sales (CBI) - US (49-States)	[redacted]
Permeation Family Name	LHDXPMETAL02
CARB-Only ATV Specification (Category ATV.A)	
50" or Less in Width?	
4 or More Low Pressure Tires?	
Seat Straddled by Operator?	
Without Passenger Seating?	
Handlebar?	
Manufacturer Previously Exempted?	
Internal Combustion Engine?	
4 or more wheels?	
Bench or bucket seating for 2 or more persons?	
Steering Wheel?	
Rear Payload Capacity >= 350lbs., or seating for 6 or more passengers?	
Designed for operation over rough terrain?	
Internal combustion engine <= 1.0L?	
Max power <= 30 kW?	
Can Travel >= 25 mph?	
4 wheels?	
Bench or bucket seating for 1 or more persons?	
Rear Payload Capacity <= 600 lbs., or N/A to SCAR-like vehicle?	

Designed for operation over rough terrain or sand?	
Can travel >=25 mph, or N/A to SCAR-like vehicle?	
Designed primarily for operation over sand dunes?	
Internal combustion engine > 1.0L?	
Applicant Notes	
Model #2	
Final Assembly Manufacturer Name	Harley-Davidson Motor Company
Manufacturer Model Name	XL883N
Commercial / Advertised Model Name	IRON 883 Stage - 1
Engine Code	54-EV
Vehicle Category	Class III Highway Motorcycle With Displacement of 280cc and Over
Evaporative Family (CARB)	LHDXU0035ACB
Number of Evaporative Canisters (CARB)	1
Bore (mm)	76.2
Displacement (cc)	883
Stroke (mm)	96.8
Basic Ignition Timing (degrees, BTDC)	15
Rated Power (kW)	[redacted]
RPM @ Rated Power	6000
Rated Torque (nt-m)	73
RPM @ Rated Torque	3750
N/V Ratio	35
Curb Mass (kg)	255
Equivalent Inertial Mass (kg)	370
Transmission (e.g. M5, A3, etc.)	M5
Vehicle Emission Compliance Information (VECI) Label Type	California and 49-state labels
Fuel System	Single Fuel System
Operating Fuel	Gasoline
Emission Control System (model / rating specific)	ECS 1
Projected Sales (CBI) - CA Only	[redacted]
Projected Sales (CBI) - US Total (includes CA Sales)	[redacted]
Projected Sales (CBI) - US (49-States)	[redacted]
Permeation Family Name	LHDXPMETAL02
CARB-Only ATV Specification (Category ATV.A)	
50" or Less in Width?	
4 or More Low Pressure Tires?	
Seat Straddled by Operator?	
Without Passenger Seating?	
Handlebar?	
Manufacturer Previously Exempted?	
Internal Combustion Engine?	
4 or more wheels?	
Bench or bucket seating for 2 or more persons?	
Steering Wheel?	

Rear Payload Capacity >= 350lbs., or seating for 6 or more passengers?	
Designed for operation over rough terrain?	
Internal combustion engine <= 1.0L?	
Max power <= 30 kW?	
Can Travel >= 25 mph?	
4 wheels?	
Bench or bucket seating for 1 or more persons?	
Rear Payload Capacity <= 600 lbs., or N/A to SCAR-like vehicle?	
Designed for operation over rough terrain or sand?	
Can travel >=25 mph, or N/A to SCAR-like vehicle?	
Designed primarily for operation over sand dunes?	
Internal combustion engine > 1.0L?	
Applicant Notes	